

Amended Finding of No Significant Impact
for
Field Release of *Laricobius osakensis* Montgomery and Shiyake
(Coleoptera: Derodontidae), a predatory beetle for Biological Control of Hemlock
Woolly Adelgid, *Adelges tsugae* (Hemiptera: Adelgidae), in the Continental United
States
December 2017

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ) Pests, Pathogens, and Biocontrol Permits (PPBP) prepared an environmental assessment (EA) that analyzed potential environmental consequences of issuing permits for release of a nonindigenous predatory beetle, *Laricobius osakensis* (Coleoptera: Derodontidae), into the environment in the continental United States for the biological control of the hemlock woolly adelgid (HWA), *Adelges tsugae*. HWA is an invasive pest of hemlock trees (*Tsuga* spp.) in eastern North America. The EA is available from:

U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine
Pests, Pathogens, and Biocontrol Permits
4700 River Road, Unit 133
Riverdale, MD 20737

https://www.aphis.usda.gov/plant_health/ea/downloads/HWA-biocontrol-EA-FONSI.pdf

The EA analyzed the following two alternatives: (1) no action, and (2) issue permits for the release of *L. osakensis* for biological control of HWA. A third alternative, to issue permits with special provisions or requirements concerning release procedures or mitigating measures, was dismissed from analysis because no issues were raised that indicated that special provisions or requirements were necessary. Notice of the EA was made available in the Federal Register on May 20, 2010 for a 30-day public comment period. One comment was received on the EA, which was in favor of the release of *L. osakensis*.

APHIS did not anticipate impacts to threatened or endangered species or their habitats nor any adverse cumulative effects from this action. The agent was determined to be sufficiently host specific and would pose little, if any, threat to the biological resources, including non-target psyllid species, of the continental United States. *L. osakensis* would also pose no threat to human or animal health. No disproportionate adverse effects to minorities, low-income populations, or children were found, in accordance with Executive Order 12898 "Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations" and Executive Order 13045, "Protection of Children from Environmental Health Risks and Safety Risks." APHIS found no evidence of any significant environmental impacts associated with the proposed action, and found that an environmental impact statement did not need to be prepared. A finding of no significant impact was issued on June 22, 2010 and subsequently, PPBP issued permits for release of *L. osakensis*.

PPBP received a request from the permittee for *L. osakensis* to approve the release of *Laricobius naganoensis*, a closely-related cryptic species that was determined to be present at low levels in cultures of *L. osakensis*. Due to the difficulty in distinguishing between the two species, *L. naganoensis* cannot be reasonably eliminated from *L. osakensis* cultures.

APHIS reviewed the information and determined that it does not raise any additional concerns that were not analyzed in the May 2010 EA, and has decided to allow the release of *L. naganoensis* as a low level component of *L. osakensis* cultures. The reasons for the decision are as follows:

- *L. naganoensis* is expected to have sufficiently similar range of prey to *L. osakensis* and other *Laricobius* species present in the environment (*L. nigrinus* and *L. rubidus*);
- *Laricobius naganoensis* comprises a minor component of *L. osakensis* colonies and would result in minor impact;
- It is unlikely to persist once released in the environment because of the difficulty in finding mating partners because of its low level presence in the population;
- *L. naganoensis* is not capable of mating/hybridizing with *L. osakensis* and presumably neither *L. nigrinus* nor *L. rubidus* to which it is even more distantly related.
- While it is unknown whether release of *L. naganoensis* into the environment will be reversible, there is no evidence that this organism will cause any adverse environmental effects.

Because I have not found evidence of significant environmental impact associated with allowing *L. naganoensis* to be released into the environment as a minor component of *L. osakensis* cultures, I find that no additional environmental documentation needs to be prepared and the proposed action may be implemented.



Steven Crook, Director
Permitting and Coordination Compliance
U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine

12/7/17

Date